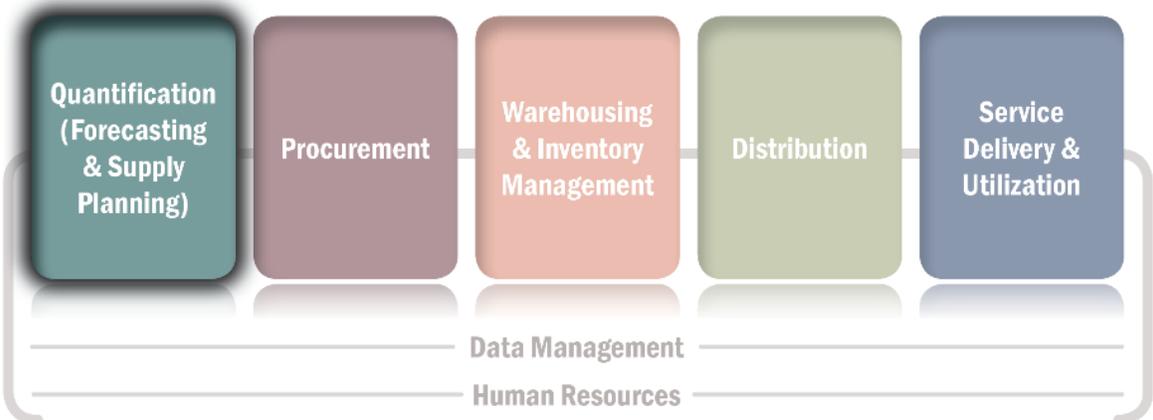


# Promising Practices

# Quantification: Forecasting and Supply Planning

Brief #1 in the *Promising Practices in Supply Chain Management Series*



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This brief is part of the *Promising Practices in Supply Chain Management* series, developed by the Supply and Awareness Technical Reference Team (TRT) of the [UN Commission on Life-Saving Commodities for Women’s and Children’s Health](#) (the Commission or UNCoLSC). As part of the [Every Woman Every Child](#) movement and efforts to meet the health-related Millennium Development Goals by 2015 and beyond, the Commission is leading activities to reduce barriers that block access to essential health commodities. The Supply and Awareness TRT developed this set of briefs on promising practices in supply chain management to guide countries in identifying and addressing key bottlenecks in the supply and distribution of the Commission’s 13 life-saving commodities across the reproductive, maternal, neonatal, and child health continuum of care.

This series of briefs has been developed for use by in-country stakeholders. The briefs provide both *proven* and *promising* practices that may be used to address specific supply chain barriers faced by each country.

- *Proven practices* are defined as interventions with proven outcomes in improving health commodity supply chains in low- and middle-income countries tested using experimental or quasi-experimental evaluation designs. Examples of proven practices are identified by this symbol throughout these briefs. 
- *Promising practices* are defined as interventions showing progress toward improving health commodity supply chains in low- and middle-income countries.

To view all the briefs in the Promising Practices in Supply Chain Management Series, visit <http://siapsprogram.org/publication/promising-practices-in-supply-chain-management>

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### Abbreviations and Acronyms

CCC	commodity coordinating committee	NGO	nongovernmental organization
HIV	human immunodeficiency virus	SCMS	Supply Chain Management System
HMIS	health management information system	SDP	service delivery point
JSI	John Snow, Inc.	SIAPS	Systems for Improved Access to Pharmaceuticals and Services
LMIC	low- and middle-income countries	STG	standard treatment guidelines
LMIS	Logistics Management Information	TRT	Technical Reference Team
MNCH	System maternal, neonatal, and child health	UNCoLSC	United Nations Commission on Life-Saving Commodities for Women’s and Children’s Health
MOH	Ministry of Health	USAID	US Agency for International Development
MOH-HTSS	MOH Health and Technical Support Services		

## Background

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The quantification of commodities relies on access to good data, knowledgeable personnel, and the coordination of key stakeholders. Without these three key components, quantification exercises often lead to inadequate forecasts of commodity needs, resulting in an under- or oversupply of life-saving commodities.

As defined for this brief, quantification incorporates both forecasting and supply planning. There is often confusion about the definition of these terms, with quantification and forecasting sometimes used interchangeably. To address this confusion, the Supply and Awareness TRT uses the following definitions<sup>1</sup>:

Term	Definition
<b>Quantification</b>	Quantification answers the question: “How much will be procured and when will it be delivered?” It includes both <i>forecasting</i> and <i>supply planning</i> . It is the process of estimating the quantities and costs of the products required for a specific health program (or service), and determining when the products should be delivered to ensure an uninterrupted supply for the program. It takes into account the expected demand for commodities, unit costs, existing stocks, stock already on order, expiries, freight, logistics and other costs, lead times, and buffer stocks. Using this information, the total commodity requirements and costs are calculated and compared with the available financial resources to determine the final quantities to procure.
<b>Forecasting</b>	Forecasting answers the question: “How much is needed, in quantities and cost, to meet the health demand of the population?” It is the process of estimating the expected consumption of commodities based on historical consumption, service statistics, morbidity and/or demographic data or assumptions when data are unavailable, to calculate the quantities of commodities needed to meet demand during a particular time frame.
<b>Supply Planning</b>	The final output of quantification, supply planning details the quantities required to fill the supply pipeline, costs, lead times, and arrival dates of shipments to ensure optimal procurement and delivery schedules.

Forecasting and supply planning are two distinctly different tasks that require unique resources and skill sets. In some locations, forecasting and supply planning may occur separately, using different personnel with expertise in each of these areas. More often, the reality is that the same quantification personnel conduct both activities, making it even more important for the quantification personnel to have a combined knowledge of both.

In addition to knowledgeable personnel, forecasting requires access to accurate data and a high level of programmatic knowledge. It also needs a solid foundation in quantification methodology, the ability to apply programmatic considerations to morbidity and consumption data, and the ability to make educated assumptions about commodity utilization and need. Forecasting functions best when there is a high level of coordination among supply chain personnel, program staff, commodity coordinating committees, and other relevant stakeholders.

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<sup>1</sup> Supply and Awareness Technical Reference Team, UN Commission on Life-Saving Commodities for Women’s and Children’s Health. *Definitions Related to Quantification, Forecasting and Supply Planning*. Washington, D.C.: np; 2013.

Standard treatment guidelines (STG) and national essential medicines lists are critical tools used in the quantification of commodities. These protocols provide evidenced-based guidance for health providers to use when treating patients. For commodities that have no historical consumption data or where these data are inadequate, STGs may be used to estimate expected needs using demographic, morbidity, and services data. However, this approach is best used when there is a reasonable expectation of high adherence to the protocols by providers. Lower levels of adherence make it more difficult to gain accurate estimates of need and impact the accuracy of the overall forecast.

Once the forecast is finalized, the supply plan is developed from it. The supply plan is the link between forecasting and procurement in that it defines what products will be procured, how much it will cost, how much to procure, and how long it will take. Supply planning is best carried out by logistics staff with knowledge of the entire supply chain as they must be able to factor in the capabilities and limitations of each supply chain function. Once finished, the supply plan should be shared with key stakeholders, including ministry of health (MOH) personnel, supply chain personnel, program managers, policy makers, and funders.

Following the development of the forecast and corresponding supply plan, regular review and revision of both are necessary to ensure that new data and other key factors are incorporated into the quantification plan on an ongoing basis. Ideally, forecasts are reviewed and revised on a quarterly basis. At a minimum, forecasts should be reviewed and revised annually. Once updated, the forecasts should then be used to update the supply plan.

There are many barriers that inhibit accurate forecasting and effective supply planning in low- and middle-income countries (LMIC). Countries often lack the necessary staff and technical expertise to conduct the right forecasting activities or to develop accurate supply plans. Inaccessible or non-existent policies and poorly defined or misunderstood methodologies further inhibit the effective implementation and success of forecasting and supply planning. Countries also struggle to find appropriate tools to help them with their quantification activities, applying one-size-fits-all approaches to address gaps in quantification capacity and knowledge that are often inappropriate. While the tools themselves are important to quantification, ultimately, it is adequate and accessible data that make for an accurate forecast and effective supply chain.

The following promising practices may mitigate barriers to effective functioning and lead to improved forecasts and supply plans:

Barriers	Description	Promising Practice(s) that Address the Barriers
<b>Lack of coordination between quantification and technical units</b>	Quantification relies on the collaboration and coordination of various stakeholders, including MOH officials, program staff, supply chain personnel, and service delivery staff. Without coordination among these stakeholders, the forecasts and supply plans are likely to be inaccurate and have limited impact.	<ul style="list-style-type: none"> <li>• Coordinate stakeholders through Commodity Coordinating Committees</li> <li>• Develop a multi-disciplinary quantification team</li> </ul>
<b>Lack of capacity in quantification</b>	Quantification, and particularly forecasting, may be a highly technical process. Without sufficient training in this area, it may be difficult for staff to conduct the activities properly, leading to inaccurate forecasts and supply plans.	<ul style="list-style-type: none"> <li>• Develop a multi-disciplinary quantification team</li> <li>• Build local capacity in quantification</li> </ul>
<b>Poor, inadequate, or inaccessible data</b>	Forecasts are only as good as the data used to inform them. Whether using consumption or morbidity data, missing and/or poor quality data inhibit the accuracy and impact of the forecasts and supply plans.	<ul style="list-style-type: none"> <li>• Link logistics and service delivery data to forecasts</li> </ul>

# Coordinate Stakeholders through Commodity Coordinating Committees

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To address the lack of coordination between quantification and technical units

Every domain of the supply chain relies on the coordination of key stakeholders to provide valuable support and assistance. The development and maintenance of a commodity coordinating committee (CCC) may be an effective way to improve coordination among stakeholders. CCC is a general term that refers to groups or committees that work to improve the availability of commodities in health supply chains. Technical working groups, reproductive health coordination committees, advisory panels, and task forces are all examples of CCCs. Membership often includes stakeholders from government, nongovernmental organizations (NGO), the private sector, and technical and donor agencies.

CCCs have been a longstanding practice for improving access to reproductive health supplies in LMICs, although their applicability spans across all types of health commodities. CCCs fulfill a variety of roles, including policy development and advocacy, working as a part of the multidisciplinary forecasting and supply planning teams, and collaborating with international donors and aid agencies. In addition, CCCs may be convened to help advocate for key legislative changes, create standard operating procedures, publish reports, and provide technical assistance, where appropriate. Among other activities, CCCs work to improve access to commodities at all levels of the supply chain and improve their use at the service delivery point (SDP) or in the community.

In addition to participating in quantification activities, these committees may also work to ensure greater collaboration and coordination among the various stakeholders who are involved in quantification, particularly at programmatic and service delivery levels. Furthermore, CCCs often work with donors to negotiate each stakeholder's commitments and to provide accountability. For example, a CCC may monitor the implementation of the supply plan and conduct follow-up if the plan is not adhered to.

The characteristics of these committees vary depending on the scope of work. CCCs may be formally established and situated in a specific part of the government or MOH. They may also be informally established or separate from the government. Regardless of where they are located, CCCs are most effective when they meet regularly (anywhere from monthly to at least twice per year), maintain meeting minutes, have a defined terms of reference, and “promote sustainable, effective and efficient service delivery and supply chain systems.”<sup>2</sup>

## When should commodity coordinating committees be considered?

Every country should have a CCCs or similar body to coordinate and strengthen quantification activities. To be effective, CCCs need strong leadership at the national level (and regional level, if the health system is decentralized), access to dedicated funding, and a supportive policy and regulatory environment.

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<sup>2</sup> MEASURE Evaluation PRH, Family Planning and Reproductive Health Indicators Database Website. Existence of an active national coordination committee that works on contraceptive or RH commodity security. Accessed November 18, 2013 from: [http://www.cpc.unc.edu/measure/prh/rh\\_indicators/crosscutting/commodity-security-and-logistics-1/existence-of-an-active-national-coordination-committee-that-works-on-contraceptive-or-rh-commodity-security](http://www.cpc.unc.edu/measure/prh/rh_indicators/crosscutting/commodity-security-and-logistics-1/existence-of-an-active-national-coordination-committee-that-works-on-contraceptive-or-rh-commodity-security).

**To learn more:**

- [Guidance and Resources for Inclusion of Maternal, Newborn, and Child Health \(MNCH\) Commodities in National Commodity Supply Coordination Committees/Mechanisms](#)
- [Contraceptive Security Committee Toolkit](#)
- [Procurement and Supply Chain Management Working Group](#)
- [Central-Level Stewardship for Reproductive Health Commodity Security in a Decentralized Setting](#)

## **HONDURAS**

The Inter-Institutional Contraceptive Security Committee, a CCC, has been active in Honduras since 2005. Consisting of a multidisciplinary group of advocates from the MOH, NGOs, supply chain personnel, and financial representatives, among others, the Committee has worked to improve access to contraceptives in Honduras. Key quantification achievements of the Committee include aligning the procurement of family planning commodities with the country's most significant family planning needs and attaining a higher level of financial support from the government for the procurement of contraceptives. In addition to these activities, the Committee has worked to increase awareness of contraceptive issues in Honduras and improve inventory management practices for contraceptives.

As donor funding decreased and the Honduran government assumed a greater financial role in the procurement of these commodities, the Committee was instrumental in the development of a national contraceptive security strategy. This strategy was prepared using maternal and child health and logistics data and financial projections for future contraceptive needs, and was essential to ensuring uninterrupted access to family planning commodities in the country.

**To learn more:**

- [Contraceptive Security Committees: Their Role in Latin America and the Caribbean](#)
- [Using Data and Information to Advance Contraceptive Security in Latin America and the Caribbean](#)

## Develop a Multidisciplinary Quantification Team

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To address the lack of coordination between supply planning and technical units and the lack of capacity in quantification

While CCCs are mainly involved in policy development and advocacy, a quantification team is responsible for producing the actual forecast and supply plan. Since forecasts, by definition, are estimations and include some informed guesswork (especially for new and underutilized commodities with unclear demand), the people involved in forecasting are a vital success factor for the process.

As discussed in the background section of this brief, forecasting and supply planning require separate skill sets and resources. If the team is responsible for both components, appropriate expertise in both areas is needed. In the absence of reliable, up-to-date, and complete data, the program and commodity experts responsible for forecasting must make critical assumptions regarding the supply, demand, and use of key commodities. The team should include people who can answer detailed questions about the logistics and service delivery data available, who can explain future program plans for reproductive, maternal, neonatal, and child health (RMNCH) commodities, and who understand the STGs and how they are implemented. Such experts include logisticians, representatives from the central warehouse, ministry staff in charge of RMNCH programs, procurement officers, and service providers who can provide insight into commodity needs at the SDPs. Members of CCCs, if available, may also be participants on the multidisciplinary quantification team.

If the team is also responsible for the supply plan, logistics and procurement staff should also be involved as they are the ones responsible for turning the forecast into a comprehensive supply plan. The quantification team may vary in size and composition, depending on the scope of commodities under review, but should be managed by a convener and facilitator. If quantification is done by commodity type, only those individuals with relevant expertise in that commodity or program need to participate. In countries where quantification activities may be divided by location (such as at the district or regional level) instead of by commodity or program, the number of people required for the quantification team is likely to increase. In this situation, it may be helpful to divide the larger group into subgroups who manage specific aspects of the activity, and then convene the larger group for final approval of the forecasts or supply plans.

### When should a multidisciplinary quantification team be used?

A multidisciplinary quantification team should always be used for quantification. The expertise that various programs, ministries, health facilities, and individuals bring to the quantification process is necessary to develop appropriate assumptions, identify data for forecasts, and review forecast results.

#### To learn more:

- [Quantification of Health Commodities: Who Should Conduct a Quantification?](#) (pages 3–4)

## MALAWI

Until 2013, Malawi conducted quantification exercises at the central level, with limited input from district staff. Given the wide variation in needs across the districts, these exercises often led to incorrect forecasting and supply planning estimates for a given area or district. As a result, some facilities received too much stock of certain commodities, leading to expiration and wastage, while other facilities experienced stock-outs of the same commodities.

To address these issues and ensure that the voice of the districts was included in the quantification, the MOH's Health and Technical Support Services (MOH-HTSS) Pharmaceutical Unit conducted the first district-based quantification in 2013. Relying on the expertise and collaboration of a multidisciplinary quantification team to provide the district-level perspective, the HTSS invited knowledgeable individuals from all levels of the health system to participate. These participants included supply chain personnel, data management personnel (such as Health Management Information System [HMIS] staff), the district health officer and/or district medical officers, health center staff (medical practitioners and pharmacy staff), and key stakeholders with expertise in specific diseases (such as HIV or malaria) from the central, district, and health center levels. Altogether, the multidisciplinary National Quantification Committee included 25 participants.

The National Quantification Committee was divided into subgroups and assigned to complete the quantification activities in a specified set of districts. Each of the subgroups included key personnel from the districts as well as central-level participants. The knowledge of the district and health center staff was used in conjunction with the knowledge of the central-level participants to inform the assumptions and justification for the quantification activities. For example, when quantification activities occurred centrally and without the diverse experience of the districts and health center staff on the committee, the resulting quantifications were not adjusted for specific factors in each district. As a result, districts that were along the Malawian border did not have estimates tailored to their diverse population needs. Since large influxes of people across borders may not be accounted for in national or regional population estimates, these districts frequently experienced stock-outs. Key personnel from these districts contributed meaningful information about unique population needs during the exercises. Following the creation of district-level estimates, the quantification subgroups reconvened to develop the national quantification plan.

The inclusion of staff from multiple disciplines at the health facility level also helped inform the development of morbidity estimates, particularly in locations where data were lacking. In addition, the inclusion of individuals from a variety of disciplines and levels helped to inform each other of the challenges experienced at each level. Central-level staff noted these benefits, stating that they gained a new appreciation and deeper knowledge of the challenges of data management and record keeping at the service delivery level.

# Build Local Capacity in Quantification

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To address the lack of capacity in quantification

Supply chain staff involved in quantification exercises frequently cite the need for better tools to improve the accuracy of their forecasts. Although many tools exist, a team that understands the forecasting and supply planning processes is essential for the tools to be used appropriately. Data availability may vary greatly in both quantity and quality, and local context may influence delivery methods, the staff available to administer or dispense commodities, and local demand for certain products. As a result, having staff appropriately trained in developing long-term forecasts enables the efficient and effective use of existing tools for quantification.

To complete and conduct periodic reviews of forecasts, the following are needed:

- Expertise in the specific program area for each commodity, including knowledge about the commodities, their recommended use, and how they are actually used in practice.
- Ability to conduct ongoing monitoring, data collection, and updating of the forecasting data and assumptions and supply planning data.
- Knowledge of the local context that may influence supply and demand for commodities.
- Ability to use the knowledge and data available to develop and justify assumptions.
- Strong communication skills and the ability to prepare and present quantification data, the methodology, and final quantification results to key stakeholders and implementers.

In addition, key members of the team need to be proficient in data management spreadsheets or other software programs that are used to create and manage the forecasting data. Once the forecasting activity is complete, technical staff turn the agreed-upon forecast into a supply plan, likely using additional software tools. The [Quantification of Health Commodities: A Guide to Forecasting and Supply Planning, Appendix B. Software Programs for Quantification of Health Commodities](#) provides a list of software tools being used for forecasting and supply planning. It should be noted, however, that these tools are not intended to act as a substitute for a knowledgeable and well-trained quantification team.

In addition to a lack of sufficient personnel to do the work, local quantification staff often lack the knowledge needed to select and implement the appropriate forecasting methodologies. In-country staff may also lack knowledge on how to turn forecasts into supply plans and on how to use quantification software and database management programs. Limited capacity in these areas may lead to the preparation of inaccurate forecasts and supply plans, which then perpetuate under- or overstocking, funding gaps, and disbursement delays.

Few countries have reliable means of developing this capacity locally. Some countries are developing diploma or certificate programs in quantification or supply chain management, but such educational programs are not yet available in all countries. To address gaps in quantification capacity, many countries have solicited external technical assistance to build the capacity of the quantification team. This often involves the use of consultants who travel to the country, provide training on various quantification exercises, and leave after the training has been completed. The use of external consultants is a helpful practice so long as a commitment is made to transfer knowledge of the quantification process to local experts to carry out the necessary updates and reviews of the forecasts on a regular basis. As such, long-term capacity building exercises are often more successful at transferring knowledge than short-term engagements.

While capacity building is important, and training is a vital component, simply offering “more training” is not necessarily a solution. This is especially true in the case of workshops, conferences, and other short-term training opportunities. For training to sufficiently build the capacity of quantification staff, ongoing support, on-the-job learning, and supportive supervision are also required.

A further description of the challenges and promising practices in capacity development may be found in the [Promising Practices in Human Resources brief](#).

## When should building local capacity in quantification be considered?

Improving local capacity for quantification should always be a priority. Ongoing efforts to develop staff capacity are necessary to ensure that quantification staff can fulfill the responsibilities of their jobs in an effective and sustainable way. Each country should consider the various means outlined above and determine which would be most appropriate given their capacity development needs, financial resources, and availability of technical expertise.

### BOTSWANA

As a high HIV prevalence country, Botswana uses condom promotion and distribution as a major HIV prevention initiative. With a changing health care infrastructure and diminishing financial support from international development organizations, it is working to optimize its condom program to ensure that there is sufficient availability and use of quality condoms in the country. Recognizing that the technical capacity to fully quantify the demand for and use of condoms was limited, the Government of Botswana reached out to the Supply Chain Management System (SCMS) for assistance. In 2012, SCMS conducted a situational analysis of condom quantification, procurement, and use. Using information gained during the assessment, SCMS hosted a three-day workshop to oversee the quantification activities for national condom requirements for a three-year period.

As a critical component of the workshop, supply chain personnel were trained in the preparation activities that should occur prior to quantification, as well as in forecasting methodology and supply planning techniques. These personnel were also trained in the use of demographic, morbidity, and service data for forecasting activities and the use of quantification software. They were also provided guidance on how to collect distribution and consumption data. Participants learned how to develop and validate assumptions, develop a draft supply plan, identify key issues in the condom supply chain, and develop a set recommendations to address the issues. Following the workshop, the supply chain personnel were able to use the new knowledge to conduct ongoing monitoring of the condom pipeline and to finalize the National Condom Strategy in 2013.

#### To learn more:

- [Botswana Condom Programming: National Condom Quantification and Supply Chain Strengthening](#)

## Link Logistics and Service Delivery Data to Forecasts

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To address difficulties in forecasting and supply planning due to poor, inadequate, or inaccessible data

The foundation of a good forecast is reliable and accurate data. In most countries, data come from a Logistics Management Information System (LMIS), which tracks the demand for and use of commodities over time. This is supplemented with information from a HMIS. If complete and accurate, these two data sets together provide the full picture of product information and service delivery in the country. Other sources of data for forecasting include demographic data, national program policies and expansion plans, and morbidity or disease prevalence data to inform assumptions in the forecast. Data sources likely include large demographic studies, census activities, and surveillance data.

Depending on the type and source of data available, the quality and accuracy may vary greatly. There are many challenges that affect the data available for forecasting. Delays in getting the data from the collection point to decision makers (particularly those involved in quantification) may limit what data are available when the forecasting exercises take place. Although forecasts are meant to be updated regularly, the timely dissemination of the various types of data used in forecasting helps to ensure that assumptions are as up-to-date as possible during forecasting activities.

In addition, duplicative and burdensome data collection by supply chain staff and last-mile health workers may lead to burnout, loss of motivation, and difficulties in completing the data collection and reporting requirements. Data may also be difficult to access—whether it is electronic or paper-based—leading to limited use and dissemination.

The forecasting team needs to have an understanding of the quality of the data available. Prior to beginning the forecast, the data should be reviewed thoroughly by supply chain staff, program personnel, HMIS officers, and any other personnel who work with HMIS or LMIS data. Any inconsistencies in reporting, unexpected findings (such as data points that are significantly under or over their expected values), and any other major factors that could have affected the data should be noted. For example, national shortages of certain commodities, such as contraceptives, could have limited the number of people who accessed them from a service provider, leading to lower consumption levels in the HMIS and LMIS data. Thus, consumption data would not accurately reflect the actual demand for the country. When HMIS data are linked with LMIS data, these types of situations may be noted and accounted for in future forecasting and supply planning exercises. Based on these findings, the assumptions used during forecasting may need to be adjusted. Many countries are working to strengthen both their LMIS and HMIS systems to provide more accurate data for a variety of reasons beyond just forecasting. Efforts to strengthen both sources of data will have an impact on forecasting processes moving forward.

A detailed discussion on integrating these two systems may be found in “Considerations for the Integration of HMIS and LMIS” listed below. A more in-depth analysis of data quality issues is provided in the *Promising Practices in Data Management* brief.

### When should logistics and service delivery data be linked?

While this strategy can help improve the data used in forecasting, the implementation of this practice can be difficult when the quality and reliability of the data sets are poor. If the forecasting

team does not have confidence in the data, they will have a difficulty knowing what data to use when there are discrepancies or inconsistencies between the two data sets. Where effort has been put into maintaining quality routine data in both systems, using both data sets for quantification is always recommended. When HMIS or LMIS data are known to be unreliable or problematic, it may be best to identify another data source for use in forecasting.

**To learn more:**

- [Considerations for the Integration of HMIS and LMIS](#)
- [Promising Practices in Data Management brief](#)

## Conclusion

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Quantification relies on having an accurate forecast that is updated regularly with timely data, and a well-managed supply plan that is continuously monitored and managed. Problems with quantification create gaps in product availability throughout the supply chain. Although challenging to achieve, efforts to improve these processes reap great rewards. As highlighted in the promising practices and examples, there are a variety of ways to make improvements in quantification, with the ultimate goal of harmonizing capacity and technical expertise, data management, and financial resources. Investments in any of these areas lead to more accurate and dependable forecasts, resulting in the creation of better supply plans.

In addition to the promising practices in this brief, there are several complementary training packages and guidance documents that may be helpful in making improvements to quantification. Moreover, the Commission has produced guidance documents for forecasting each of the 13 life-saving commodities. Intended to be used in conjunction with the USAID|DELIVER PROJECT Quantification Guide, the guidance documents provide a solid foundation for continued investment and improvements in quantification.

### To learn more:

- [Quantification of Health Commodities](#)
- Quantification of Health Commodities: RMNCH Supplement. Forecasting Consumption of Select Reproductive, Maternal, Neonatal and Child Health Commodities
- [Quantification of Health Commodities: Community Case Management Products Companion Guide](#)

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